



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.				
10/701,474	11/06/2003	Tae Jae Lee	HI-0173	8596				
34610 KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200	7590 07/03/2007		<table border="1"><tr><td colspan="2">EXAMINER</td></tr><tr><td colspan="2">ABELSON, RONALD B</td></tr></table>		EXAMINER		ABELSON, RONALD B	
EXAMINER								
ABELSON, RONALD B								
			<table border="1"><tr><td>ART UNIT</td><td>PAPER NUMBER</td></tr><tr><td>2616</td><td></td></tr></table>	ART UNIT	PAPER NUMBER	2616		
ART UNIT	PAPER NUMBER							
2616								
			<table border="1"><tr><td>MAIL DATE</td><td>DELIVERY MODE</td></tr><tr><td>07/03/2007</td><td>PAPER</td></tr></table>	MAIL DATE	DELIVERY MODE	07/03/2007	PAPER	
MAIL DATE	DELIVERY MODE							
07/03/2007	PAPER							

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/701,474	LEE, TAE JAE	
	Examiner	Art Unit	
	Ronald Abelson	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 16-25 is/are rejected.
- 7) ☒ Claim(s) 2,6-15 and 26-37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2616

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35

U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 16 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The "message" in lines 9 and 10 is not defined.

Claims 18 and 20-23 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 18, in the phrase, "receiving the at least one ATM cell and storing the at ^{least} ~~test~~ one ATM cell in a cell buffer using a cell buffer identifier that was previously stored", it is not clear if the ATM cell is being stored at a location that had previously been used for storage or if the cell buffer identifier had previously been stored.

Art Unit: 2616

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 1, 17, 24, 25, are rejected under 35 U.S.C. 103(a) as being unpatentable over Cai (US 6,134,246) in view of Keller-Tuberg (US 6,189,042).

Regarding claims 1, 24, 25, Cai teaches a data transmitter including a transmission data storage unit configured to store data received from a calculation processing module (fig. 2 box 100 col. 4 lines 9-11).

Cai teaches a cell generator configured to divide a message stored in the transmission data storage unit into a predetermined amount of data (fig. 2 box 110, col. 4 lines 10-15).

Art Unit: 2616

Cai teaches a cell transmitter configured to transmit the at least one ATM cell generated at the cell generator to an ATM switch module (col. 4 lines 20-22).

Although Cai teaches a header in both the AAL5 packet (fig. 2 box 100) and ATM packet (fig. 2 box 120), the reference is silent on combining the data using Virtual Path Identifier/Virtual Channel Identifier (VPI/VCI) information attached to the message to generate at least one ATM cell.

Keller-Tuberg teaches using the same VP/VC in both the ATM and AAL5 headers (fig. 3: EXCHANGE 32).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Keller-Tuberg by combining the data using Virtual Path Identifier/Virtual Channel Identifier (VPI/VCI) information attached to the message to generate at least one ATM cell, as suggested by Keller-Tuberg. This modification can be performed in software. This modification would benefit the system by providing a common VPI/VCI at both the ATM and AAL5 layers. This modification would obviate the need for a lookup table to determine the correspondence.

Regarding claim 17, Cai teaches generating at least one ATM cell by repeatedly performing a process of combining a cell

Art Unit: 2616

header and 48-byte data extracted from the message (fig. 2 box 110, col. 4 lines 10-15) and transmitting the at least one ATM (col. 4 lines 20-22).

Cai is silent on the cell header of the generated ATM cell contains the Virtual Path Identifier/Virtual Channel Identifier (VPI/VCI) information included in the message.

Keller-Tuberg teaches using the same VP/VC in both the ATM and AAL5 headers (fig. 3: EXCHANGE 32).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Keller-Tuberg by combining the data using Virtual Path Identifier/Virtual Channel Identifier (VPI/VCI) information attached to the message to generate at least one ATM cell, as suggested by Keller-Tuberg. This modification can be performed in software. This modification would benefit the system by providing a common VPI/VCI at both the ATM and AAL5 layers. This modification would obviate the need for a lookup table to determine the correspondence.

Although the combination teaches dividing an AAL5 packet into a plurality of ATM cells (Cai: col. 4 lines 10-12), the reference is silent on reducing a message length value included in a message by one, whenever one byte of data is fetched from

Art Unit: 2616

the message received from a first calculation processing module;
and generating at least one ATM cell until the message length
becomes 0.

However, it would have been obvious to one of ordinary skill in the art, to modify the system of the combination by using a counter to perform the steps of reducing a message length value / counter value, included in a message by one, whenever one byte of data is fetched from the message received from a first calculation processing module; and generating at least one ATM cell until the message length becomes 0, by using a counter. This modification could be performed by initializing the counter to the number of ATM cells that will be generated from the AAL5 packet and decrementing the counter value by one each time an ATM cell is generated. This modification would benefit the system by informing it when the last ATM cell has been generated.

5. Claims 3 - 5, 19, are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Cai and Keller-Tuberg as applied to claim 1 above, and further in view of Susnow (US 7,190,667).

Art Unit: 2616

The combination is silent on a cell header coupled to each of the data comprises PT information representing whether or not the divided data is the last data of the message.

Susnow teaches a cell header coupled to each of the data comprises PT information representing whether or not the divided data is the last data of the message (col. 6 lines 40-43).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination by including in the cell header a field to indicate if the packet is the last packet in the message, as shown by Susnow. This modification can be performed in software. This modification would benefit the system by informing the receiving device when the last packet of the message has been sent.

Regarding claims 5, 19, the cell generator is configured to set PT information of the corresponding ATM cell to 1 when a read counter is 0. Examiner corresponds applicant's PT=1 to the identity of the last packet of Susnow.

Allowable Subject Matter

6. Claims 2, 6-15, and 26-37 are objected to as being dependent upon a rejected base claim, but would be allowable if

Art Unit: 2616

rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RA
Ronald Abelson
Examiner
Art Unit 2616
